REMARKS

Claims 2-4, 6-10 and 15-42 remain in the application. Claims 1, 5 and 11-14 are canceled without prejudice. Claims 2-4, 18-20, 23, 25 and 26 are hereby amended. No new matter is being added.

Election/Restrictions

Applicants confirm the election without traverse of Group I including claims 1-4, 6-10, and 15-42.

Specification

The specification is hereby amended to overcome the objections in the latest office action. Specifically, a) a "Brief Description of the Drawings" section is added, b) the reference to figure 5E is deleted, c) the correction indicated by the Examiner is made. No new matter is being added. Applicants respectfully submit that these objections are now overcome.

Claim Rejections--35 USC 112

Claims 32 and 41 were rejected under the written description requirement. However, applicants submit that claim 41 is an original claim and that claim 32 has been only minimally amended to replace "the data values themselves" with – pixel values--. Applicants further submit that **the original claims 32 and 41 are part of the original specification**. Hence, applicants respectfully submit that it is clear from the original claims 32 and 41 that the inventors, at the time the

application was filed, had possession of the claimed invention per claims 32 and 41. Therefore, applicants respectfully submit that this rejection is overcome.

Claims 3 and 4 were rejected for insufficient antecedent basis. Claims 3 and 4 are hereby amended to correct the antecedent bases of the terms identified in the rejection. Therefore, applicants respectfully submit that this rejection is overcome.

Claim Rejections--35 USC 102

Lee '060

Claims 1, 2, 16-17, 26-30, 33-35 were rejected under 35 USC 102 as being anticipated by Lee '060 (USP 6,539,060). Claim 1 is hereby canceled without prejudice to facilitate prosecution of the remaining claims. Applicants respectfully traverse this rejection with respect to the claims as now amended.

Amended claim 2 now recites as follows.

2. A method of processing all or a portion of a multi-dimensional signal with a domain composed of a collection of arbitrarily shaped domains via a multi-scale transform comprising the steps of:
   a. Obtaining a multi-dimensional digital image frame;
   b. Breaking the image frame into constituent arbitrary shaped domains, or given such a set, that cover all or a portion of the original multidimensional signal domain; and
   c. Performing a domain adaptive transform on one or more of the collection of arbitrary shaped domains, wherein the domain adaptive transform comprises a transform in which a filter comprising a convolution operator is applied to

process all pixels near a boundary of the domain but is not applied to process

any pixels in an interior of the domain that are not near the boundary.

(Emphasis added.)

As shown above, amended claim 2 is now limited such that it requires

"Performing a domain adaptive transform on one or more of the collection of

arbitrary shaped domains, wherein the domain adaptive transform comprises a

transform in which a filter comprising a convolution operator is applied to process

all pixels near a boundary of the domain but is not applied to process any pixels in

an interior of the domain that are not near the boundary." (Emphasis added.)

This claim limitation is supported, for example, by FIG. 15C of the present

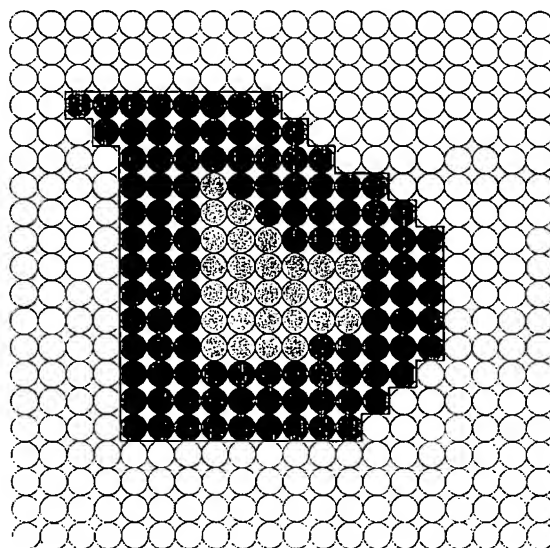application, which is reproduced below for convenience of reference.

FIG. 15C

The present application states, "A domain adaptive transform is a transform (multi-scale or otherwise), which changes its rules of representation when it encounters the boundary of an arbitrarily shaped region. These rules will differ from those applied by the transform when processing a pixel located in the interior of the image segment ...." (Page 24, lines 21-24.) Furthermore, regarding above FIG. 15C, the present application states, "all points shaded dark gray are located near the boundary ... and all points shaded light gray are located in the interior." (Page 25, lines 7-9.)

Applicants respectfully submit that Lee '060 does not teach the limitations of amended claim 2. For convenience of reference, FIG. 8B (cited in the latest office action) is reproduced below.

FIG. 8B
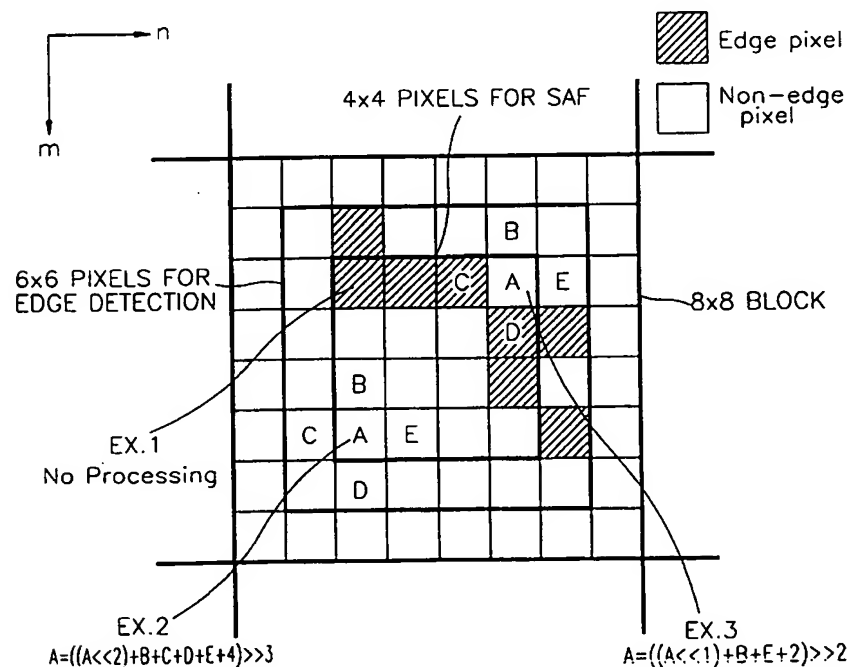
As shown above, FIG. 8B of Lee '060 does not teach a convolution operator applied to **all** pixels near a boundary of a domain but not to **any** interior pixels that are not near the boundary.

Therefore, applicants respectfully submit that claim 2, as now amended, now overcomes this rejection.

The other claims depend from independent claim 2. Therefore, applicants respectfully submit that these other claims now also overcome this rejection for at least the reasons discussed above in relation to claim 2.

Lee '813

Claim 1 was rejected under 35 USC 102 as being anticipated by Lee '813 (USP 5,877,813). Claim 1 is hereby canceled without prejudice to facilitate prosecution of the remaining claims. Therefore, applicants respectfully submit that this rejection is now moot.

Mauer

Similarly, claims 1 and claims depending from claim 1 were rejected under 35 USC 102 as being anticipated by Mauer. Claim 1 is hereby canceled without prejudice to facilitate prosecution of the remaining claims. Therefore, applicants respectfully submit that this rejection is now moot.

Claim Rejections--35 USC 103

Claims 2-4, 6-10, 15, 18-30 and 34-35 were rejected under 35 USC 103 as being unpatentable over Lee '813 in view of Das. Applicants respectfully traverse this rejection with respect to the claims as now amended.

As discussed above, amended claim 2 is now limited such that it requires "Performing a domain adaptive transform on one or more of the collection of arbitrary shaped domains, wherein the domain adaptive transform comprises a transform in which a filter comprising a convolution operator is applied to process all pixels near a boundary of the domain but is not applied to process any pixels in an interior of the domain that are not near the boundary." (Emphasis added.)

Applicants respectfully submit that Lee '813 does not teach the limitations of amended claim 2. For convenience of reference, FIG. 3 (cited in the latest office action) is reproduced below.

FIG. 3

BINARY EDGE MAP

AVERAGE
FILTERING

WEIGHT
FILTERING
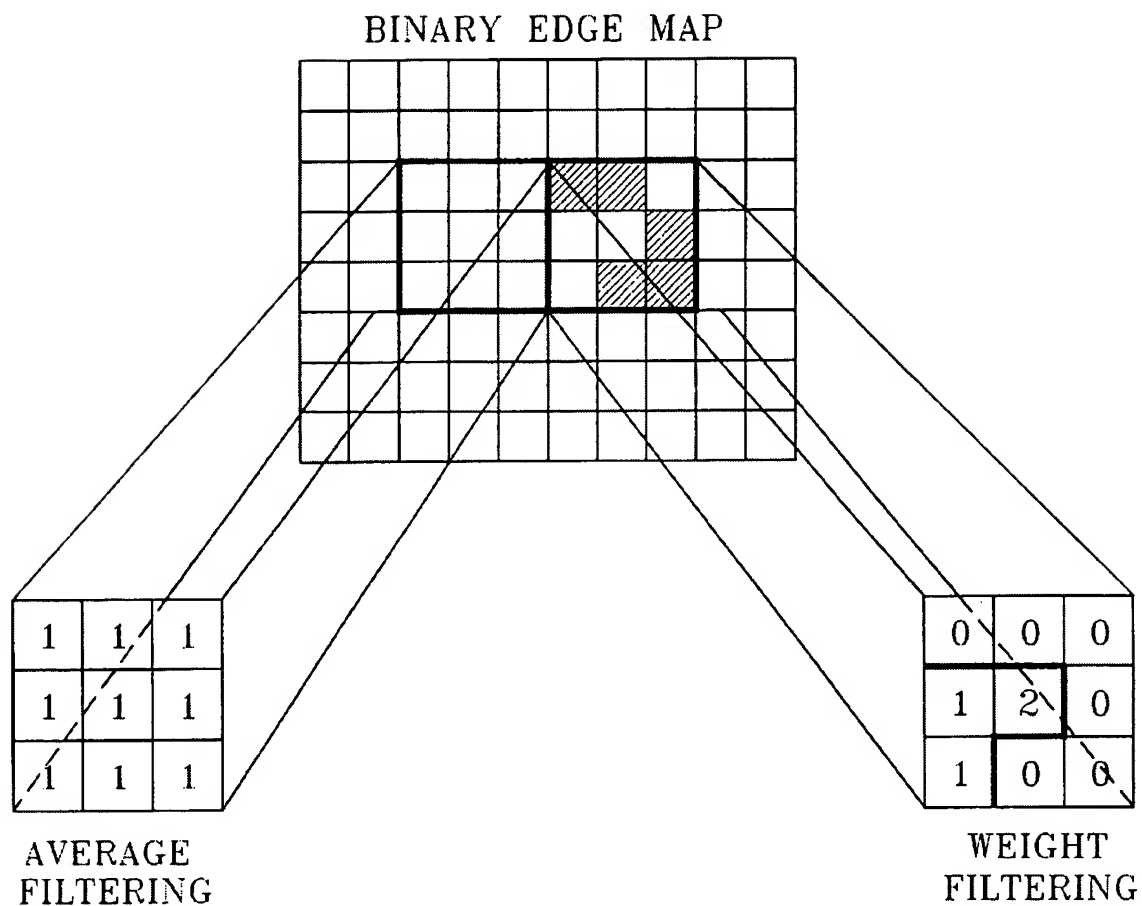
As shown above, FIG. 3 of Lee '813 does not teach a convolution operator applied to **all** pixels near a boundary of a domain but not to **any** interior pixels that are not near the boundary. Das also does not teach these claim limitations.

Therefore, applicants respectfully submit that claim 2, as now amended, now overcomes this rejection.

Independent claims 3-4 are amended similarly as claim 2 is amended. Therefore, applicants respectfully submit that claims 3-4 now also overcome this rejection for at least the reasons discussed above in relation to claim 2.

The other claims depend from the independent claims 2-4. Therefore, applicants respectfully submit that these other claims now also overcome this rejection for at least the reasons discussed above.
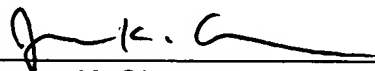
Conclusion

For the above discussed reasons, applicants respectfully submit that claims 2-4, 6-10 and 15-42, as now amended, now overcome the rejections in the latest office action.
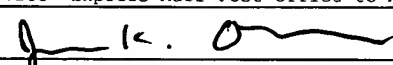
The Examiner is invited to call the undersigned for any questions. Favorable action is respectfully solicited.

Respectfully submitted,

Adityo Prakash, et al.

Dated: December 4, 2007   By: _____

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